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Carla R. Aliberti

Carla R. Aliberti

PATENT

Applicant: Akira Yoshida

Serial No.: 09/040,539

Filed: 03/17/1998

Title: Window Display Device and Method, and Recording Medium Recording a Window Display Control Program

Examiner: Huynh-Ba

Group Art Unit: 2173

Atty Docket No.: 12780-1009

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

SUBSTITUTE APPELLANT'S APPEAL BRIEF (WITH CORRECTED APPENDIX)

Commissioner for Patents
Attention: Group No. 2173
Washington, D.C. 20231

Sir:

In response to the Office communication dated June 8, 2001, Appellant appeals the rejections of Examiner Huynh-Ba.

(1) REAL PARTY IN INTEREST

The present application has been assigned to International Business Machines Corporation, a New York corporation.

(2) RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to the present case.

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OFFICE OF PETITIONS

(3) STATUS OF CLAIMS

Claims 1 and 2 are rejected under 35 U.S.C. §112, first paragraph.

Claims 1, 4 and 6 are rejected under 35 U.S.C. §102(e) as being unpatentable over U.S. Pat. 5,945,998 (Eick).

Claims 2, 3, 5, 7 and 9 are rejected under 35 U.S.C. §103(a) over U.S. Pat. 5,945,998 (Eick) in view of U.S. Pat. 6,054,990 (Tran).

Claims 1-7 and 9 are rejected under 35 U.S.C. §103(a) over U.S. Pat. 5,930,809 (Middlebrook) in view of U.S. Patent 6,054,990 (Tran).

Claim 8 has been cancelled without prejudice in the August 23, 2000 Preliminary Amendment.

Claims 1-7 and 9 are subject to this Appeal before the Board of Patent Appeals and Interferences.

(4) STATUS OF AMENDMENTS

An After Final Amendment was filed January 17, 2001. An Advisory Action was received from the United States patent and Trademark Office on June 8, 2001 in which Examiner Huynh-Ba indicated that added limitations in the 1/17/01 Amendment introduce new issues. The amendments were not entered.

(5) SUMMARY OF INVENTION

The invention is directed to improving display methods of multi page computer documents by allowing a user to easily navigate through the document and control the area of the document which is displayed. The user control is asserted by moving an indicating frame within a reduced image of a multi page document on a small portion of the screen so that the area surrounded by the indicating frame is instantly displayed and magnified in a main frame on a larger portion of the computer screen.

FIG. 1 (FIG. 3(A) of Patent Application) is provided to assist in understanding the functionality of a display method performed according to the claimed invention.

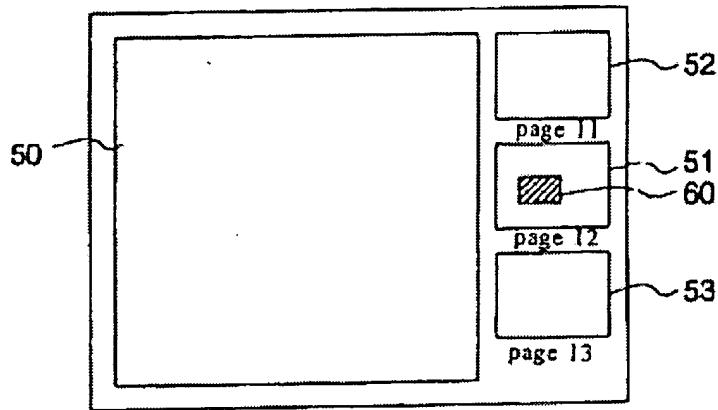


FIG. 1

As illustrated in FIG. 1, reduced images of a multi-page document are displayed in a series of small frames (51, 52, 53) on a computer screen. A user moves an indicating frame (60) within one of the small frames (51) using a pointing device, such as a mouse. As the user moves the indicating frame (60) with the mouse, the portion of the multi page document that is within the indicating frame (60) is magnified and displayed in a large, main frame (50) on the computer screen. Movement of the indicating fame (60) by the user thus effects corresponding movement of the displayed portion of the document within the main frame display (50), contributing to faster and easier navigation within a multi page document.

Additionally, the invention includes a scrolling feature for document navigation. Referring to FIG. 1, page 12 is displayed in reduced size in the center small frame (51). The portion of page 12 that enclosed within the indicating frame (60) is displayed in the main frame (50). However, a user can drag the indicating frame (60) from the center small frame (51) to an adjacent small frame (e.g. 53). The main screen (50) then changes its display from page 12 to page 13. Also, the small frames (51, 52 and 53) are scrolled so that page 13 now occupies the middle small frame position (51). The upper small frame (52) would then display a reduced image of page 12 and the lower small frame (53) would display a reduced image of page 14.

As recited in the pending claims, two features of the Appellant's invention include (1) **notification** of movement of the indicating frame and (2) the small frame or main frame **causing** the indicating frame to be moved while the user is operating the mouse in a dragging state.

Specifically, the small frames **notify** movement of the mouse (which the user moves in order to move the indicating frame) to the main frame. By processing the **notified** mouse messages, the frames (e.g. Windows®) **cause** the display indicating frame to be moved therein. As is well understood in this art, the frame must be programmed to receive and **notify** mouse messages, as well as to process the messages to **cause** objects (e.g. the indicating frame) inside of the frame to move.

(6) ISSUES

- 1) Whether claims 1 and 2 are unpatentable under 35 U.S.C. § 112, first paragraph, as being based on a nonenabling disclosure.
- 2) Whether claims 1, 4 and 6 are unpatentable under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. 5,945,998 (Eick).
- 3) Whether claims 2, 3, 5, 7 and 9 are unpatentable under 35 U.S.C. §103(a) over U.S. Pat. 5,945,998 (Eick) in view of U.S. Pat. 6,054,990 (Tran).
- 4) Whether claims 1-7 and 9 are unpatentable under 35 U.S.C. §103(a) over U.S. Pat. 5,930,809 (Middlebrook) in view of U.S. Patent 6,054,990 (Tran).

(7) GROUPING OF CLAIMS

Claims 1-2 are grouped together with respect to the rejection under 35 U.S.C. § 112, first paragraph;

1,4-6 are grouped together with respect to the rejection under 35 U.S.C. §102(e);
2-3, 5, 7, 9 are grouped together with respect to the first rejection under 35 U.S.C. §103(a); and

1-7, 9 are grouped together with respect to the second rejection under 35 U.S.C. §103(a).

(8) ARGUMENT

A. Background

The new document navigation and viewing methods that are provided by the present application represent an improved approach to the presentation of documents on a computer screen and the access to various locations within the documents. In recognition of the importance of this application the Appellant has made every reasonable effort to cooperate with Examiner Huynh-Ba to overcome his persistent rejections. The file history demonstrates Appellant's sincerity and belief in the patentability of his invention.

The present application was originally filed March 17, 1998. The first substantive Office Action addressing the merits of patentability was sent July 21, 1999 (see paper number 7), at which time Examiner Huynh-Ba rejected all pending claims based on 35 U.S.C. § 103(a).

In Appellant's response to the July 21, 1999 Office Action, Appellant set out detailed arguments directed to differences of the invention from the cited prior art references in response to the Examiner's rejections.

In his January 3, 2000 Office Action (see paper number 10), Examiner Huynh-Ba did not acknowledge Appellant's previous arguments. However, the Examiner again rejected all pending claims with new rejections. Specifically, claims 1-7 were rejected under 35 U.S.C. §112, first paragraph, claims 1-3, 5 and 7 were rejected under 35 U.S.C. §112, second paragraph, and claims 1, 4 and 6 were rejected under 35 U.S.C. 102(e). Moreover, Examiner Huynh-Ba stated that claims 2-3, 5 and 7 were also rejected for the same reason as the rejection of claim 1.

In response to Examiner Huynh-Ba's rejections of January 3, 2000, Appellant amended claims 2, 5 and 7 and submitted new claims 8 and 9 to overcome the Examiner's rejections.

On May 23, 2000 the Examiner issued a Final Office Action, rejecting all pending claims.

Appellant initiated a telephone interview with the Examiner on June 22, 2000 to ascertain features of the invention that the Examiner might consider allowable in amended claims. During the June 22, 2000 telephone interview, the Appellant's proposed claim amendments which Examiner Huynh-Ba indicated were no longer covered by the prior art cited; however, the Examiner concluded that these amended claims would be subject to new prior art rejections.

Following the June 22, 2000 telephone interview with the Examiner, Appellant filed an After Final amendment responsive to the telephone interview discussion. The Examiner indicated that the amendments, if entered, would require further examination, and therefore declined to enter the amendments.

On August 23, 2001 Appellant filed a Continued Prosecution Application under 37 CFR 1.53(d) and a Preliminary Amendment consistent with the course of action discussed in the June 22, 2000 interview. In the preliminary amendment claim 8 was canceled and claims 1, 2, 4, 5, 6 and 7 were amended to overcome the Examiner's previous rejections and place the application in condition for allowance.

In his October 17, 2000 Office Action (see paper number 17), however, Examiner Huynh-Ba again rejected all pending claims. Claims 5-7 were rejected under 35 U.S.C. §112, first paragraph, claims 1-4 and 9 were rejected under 35 U.S.C. §112, second paragraph, claims 1, 4, and 6 were rejected under 35 U.S.C. §102(e) and claims 1-7 were variously rejected under §103(a).

In response to the Examiner's rejections of October 17, 2000, Appellant filed an amendment on January 17, 2000, amending claims 1 and 2 to overcome the Examiner's rejections.

In his March 23, 2001 Final Office Action (see paper number 20), Examiner Huynh-Ba again rejected all pending claims. Claims 1 and 2 were rejected under 35 U.S.C. §112 based on their previous amendment. Claims 1, 4 and 6 were rejected under 35 U.S.C. §102(e) and claims 1-7 and 9 were variously rejected under U.S.C. §103(a).

In response to Examiner Huynh-Ba's rejections of March 23, 2001, Appellant continued to engage the Examiner in constructive dialogue. A telephone interview was conducted on May 21, 2001, consistent with which Appellant filed an amendment on May 23, 2001.

In his June 8, 2001 Advisory Action, Examiner Huynh-Ba indicated refusal to enter the amendments, for the reason that such amendments would require additional examination.

In response to Examiner Huynh-Ba's rejections of March 23, 2001, and the continuing telephone interviews, Appellant filed a Notice of Appeal in July 2001 and continued to engage Examiner Huynh-Ba in constructive dialogue. In response to the Examiner's request that an English translation of a foreign document submitted in the IDS be obtained, Appellant obtained such English translation and submitted it in a supplemental IDS on August 15, 2001.

Despite continued efforts to better understand the basis for Examiner Huynh-Ba's persistent opposition to the present application, the Examiner's persistent 35 U.S.C. § 112 first paragraph and 35 U.S.C. §§ 102(e) and 103(a) rejections remain unresolved.

The 35 U.S.C. § 112 first paragraph rejection of claims 1 and 2 is based on the alleged non-enablement of the claimed limitation "said first sub-screen causing said display indicating frame to be moved within said sub-screen (Examiner's emphasis).

Furthermore, Examiner Huynh-Ba rejects claims 2, 3, 5, 7 and 9 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,945,998 (Eick) in view of U.S. Patent No. 6,054,990 (Tran).

Also, Examiner Huynh-Ba rejects claims 1-7 and 9 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,930,809 (Middlebrook), in view of U.S. Patent No. 6,054,990 (Tran).

Each of the Examiner's rejections will be addressed individually below and the applicable cases cited in those arguments will support the Appellant's position.

B. Rejection of Claims 71-94 Under 35 U.S.C. § 112 First Paragraph

The Examiner rejected claims 1 and 2 under 35 U.S.C. § 112, first paragraph, asserting that the specification does not enable the limitation "said first sub-screen causing said display indicating frame to be moved within said sub-screen (Examiner's emphasis). However, as discussed in the various telephone interviews with the Examiner, and as set out, for example, in Appellant's June 26, 2000 amendment, the claimed limitation is disclosed and, indeed, supported by the specification.

Appellant respectfully traverses this ground of rejection and, for completeness of the record, will also discuss the general understanding of those skilled in the art with respect to the functionality of Windows® and the claimed limitation.

1. The Examiner has not provided a sufficient basis to establish that a reasonable doubt exists under 35 U.S.C. §112, first paragraph.

Briefly, the test for enablement is whether the disclosure as filed provides sufficient information regarding the subject matter of the claims to enable one skilled in the pertinent art to make and use the claimed invention (see MPEP 2164.01). In this regard,

“A specification which contains a teaching of the manner and process of making and using an invention must be taken as being in compliance with the enablement requirement of 35 U.S.C. § 112, first paragraph, unless there is reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support.” (MPEP 2164.04).

Similarly, as stated by the Court of Customs and Patent Appeals:

“As a matter of Patent Office practice, then, a specification disclosure which contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented *must* be taken as in compliance with the enabling requirement of the first paragraph of § 112 *unless* there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support.” *In re Marzocchi* 169 USPQ 367, 369 (C.C.P.A. 1971) (emphasis original).

The application under appeal provides literal disclosure of the claimed limitation. Moreover, the application also provides detailed examples demonstrating the present invention’s display indicating frame movement feature. Yet, an enabling disclosure is all that is required. It is not necessary for the applicant to provide examples or to describe every embodiment. (see *Gould v. Quigg*, 822 F. 2d 1074, 3 USPQ 2d 1302 Fed Cir. 1987). Therefore, Appellant asserts that the burden of proving that the specification is not enabling for a sub-screen causing

movement of a display indicating frame as claimed in the present application falls on the Examiner as explained in *Marzocchi*, 439 F. 2d at 223-24, 169 USPQ at 369-70:

“When rejecting a claim under the enablement requirement of section 112, the PTO bears the initial burden of setting forth a reasonable explanation as to why it believes that the scope of protection provided by the claim is not adequately enabled by the description of the invention provided in the specification of the application; this includes of course, providing sufficient reasons for doubting any assertions in the specification as to the scope of enablement. (Emphasis added).

In the instant case, the Examiner has only asserted, without support, that the functionality of a sub-screen to move a display indicating frame contained therein is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The Examiner has not provided sufficient reasons for doubting any assertions in the specification that the specification does not adequately enable claims directed at a sub-screen causing an object therein, such as an indicating frame, to move. Sufficient reasons have not been provided even in response to Appellant’s continued assertions that the claimed limitation is literally disclosed in the specification in multiple locations, and enabled further still with various specific examples. Hence, Appellant submits that the Examiner has not made out a sufficient base to doubt the objective statements made in the application, as required by the CCPA in *In re Marzocchi*.

2. *Even assuming, for purpose of argument, that the Examiner has provided a basis for doubting the enablement of the claims, this doubt is rebutted by the Appellant.*

Assuming for purposes of argument that the Examiner has provided a reasonable basis for doubting the enablement of the claims, such a basis may be rebutted by Appellant (see MPEP 2164.05). Such evidence “need not be conclusive but merely convincing to one skilled in the art.” (MPEP2164.05).

a. Use of Windows® in applications programming is generally accepted as one of the best avenues for causing movement of objects on a computer screen.

With respect to programming in general and Windows or frames applications in particular, Appellant respectfully submits that such a model is indeed one of the best known methods for displaying objects on a computer screen and for **causing** their movement. For example, in the background section of the application, Appellant describes that a particular prior art **window display method** allows a user to move a page simply by mouse manipulation. Beyond this literally disclosed example, however, Appellant asserts that the functionality of a window to cause object movement therein to appear on a computer screen is well-known and, in fact, commonly practiced in the art.

b. The application is indeed enabled for a window causing movement of an indicating frame therein.

Page 4, lines 6-8 of the application introduce the function of the claimed limitation “said first sub-screen **causing** said display indicating frame to be moved within said sub-screen”:

The first sub-screen window **causing** the display indicating frame to be moved within the first sub-screen while the pointing device is in dragging state (emphasis added).

After its introduction in the specification, the claimed limitation is further discussed and enabled, for example, on page 18, lines 4-6 of the application, which state:

The sub-screen image window 201 **provides movement and re-drawing** of the view frame 60 according to dragging and dropping of the mouse and the movement of the mouse (emphasis added).

As discussed in the various telephone interviews with the Examiner, those skilled in the art of Windows and various applications programming understand the functionality of a window and its **inherent ability to cause movement** and re-drawing of its member objects, in this case

the view frame, based on its receipt of messages from a mouse or other computer peripheral device.

Despite the **well known** functions and abilities of windows to **cause** movement of member objects therein, the specification was highly detailed and provided a detailed discussion regarding **how such movement is caused**. At page 18, line 21 through page 19, line 10, for example, the specification states:

When the sub-screen image window 201 of the sub-screen 51 of the page currently displayed on the main screen 50 detects that the view frame 60 (inverted area) has been **dragged** by the mouse (S1), **acquisition of WM-MOUSEMOVE** message (signal) of the mouse 7, that is so called mouse capture is started (S2). When the sub-screen image **window 201 detects** that the view frame 60 has moved within the subscreen 51 (S3) **based on the output of the mouse (WM-MOUSEMOVE)**, it causes the view frame 60 on the sub-screen 51 to **move corresponding to the movement of the mouse** and **notifies the movement** to the main screen image window 220 (S4)) (emphasis added).

Even without the application's detailed example involving a window **causing** movement of member objects, those skilled in the art of Windows® programming understand the manner in which a window, in this case the sub-screen image window, **utilizes messages** from computer peripheral devices, in this case WM_MOUSEMOVE, **to move and re-draw** member objects, in this case the view frame. The utilization of messages to provide movement and re-drawing is one method by which a window **causes** an object to move corresponding to the movement of a mouse, and is well known in the art. Appellant asserts that the relevant description in the specification is more than sufficient to enable one skilled in the art to program a sub-screen window containing a display indicating frame subject to the limitation "said first sub-screen window causing said display indicating frame to be moved within said first sub-screen while said pointing device is in dragging state.

It is clear that the claimed limitation is not only sufficiently enabled by the specification through a literal presence of the claimed limitation coupled with the general understanding of those skilled in the art, but it is further enabled by the highly detailed example and discussion contained within the application at the identified pages.

3. *The specification is sufficiently enabling such that persons of ordinary skill in the art could program a window to cause movement of an indicating frame therein without undue experimentation.*

In re Wands 858 F. 2d 731, 8 USPQ 2d 1400 sets out in detail the standard for review that the Examiner must follow in rejecting claims as non-enabling under 35 U.S.C. § 112 First Paragraph. These factors include: 1) the quantity of experimentation necessary; 2) the amount of direction or guidance presented; 3) the presence or absence of working examples; 4) the nature of the invention; 5) the state of the prior art; 6) the relative skill in the art; 7) the predictability or unpredictability of the art and 8) the breadth of the claims.

In the application under appeal Examiner Huynh-Ba failed to present objective evidence that would support each of the *In re Wand* factors. In fact, the Appellant asserts that had Examiner Huynh-Ba conducted the analysis required by *In re Wand* he would have reasonably concluded that the specification was fully enabling to those of ordinary skill in the art.

First, minimal additional experimentation would be required in view of the detailed specification, the state of the art, and long history creating member objects within a window and causing those objects to move in response to receipt of mouse movement messages.

Second, the application under appeal provides detailed direction for the receipt of specific mouse movement messages and movement of a display indicating frame inside a sub-screen window in response to the mouse messages. The example provides a real context for a functionality of windows that is already well understood and widely practiced by those skilled in the art.

Third, as previously discussed, the application under appeal is replete with working examples of how an exemplary window might function, within the scope of the invention, to receive mouse messages and cause an object to move therein in response to those messages.

Fourth, the invention is a window display device and method as detailed in the specification of the application under appeal.

Fifth, the prior art provides significant instruction in the programming of windows to contain objects within them, to receive mouse messages signifying movement desired and initiated by a computer user, and to cause the objects to move within the windows in response and according to the received mouse messages.

Sixth, the skill in the art of modern computer programming is extremely high. Programmers generally possess a wide range of technical skills in addition to a detailed and contemporary knowledge of the prior art.

Seventh, the art of computer programming is highly structured according to strict sets of rules and procedures, such that it is a highly predictable art.

Finally, the breath of the claims under appeal are consistent with the teachings of the subject application. Therefore, the Appellant asserts that he has met his burden under *In re Wands* and that Examiner Huynh-Ba has not.

In conclusion, the Appellant believes that the application under appeal provides a reasonable basis for conveying to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention, including the limitation "said first sub-screen window causing said display indicating frame to be moved within said first sub-screen while said pointing device is in dragging state." Furthermore, the Appellant asserts that a person of ordinary skill in the art could easily program a sub-screen window to contain an indicating frame and to **cause** the indicating frame to move while a mouse is in a dragging state without undue experimentation. Consequently, the Appellant submits that Examiner Huynh-Ba has failed to meet his burden to provide a reasonable, scientifically supported explanation as to why he believes the application under appeal does not adequately enable the claims.

C. Rejection of Claims 1, 4 and 6 Under 35 U.S.C. § 102(e)

The Examiner rejected claims 1, 4 and 6 under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 5,945,998 (Eick), asserting that the recited elements of the claim are disclosed in Eick. However, several elements of these claims are not disclosed in the Eick reference, either facially or inherently.

Appellant respectfully traverses this ground of rejection.

1. *The applicable law requires “strict identity.”*

It is axiomatic that “[a]nticipation is established only when a single prior art reference discloses expressly or under the principles of inherency, each and every element of the claimed invention.” RCA Corp. v. Applied Digital Data Systems, Inc., (1984 CAFC) 221 U.S.P.Q. 385. The standard for lack of novelty, that is, for “anticipation,” is one of strict identity. To anticipate a claim, a patent or a single prior art reference must contain all of the essential elements of the particular claims. Schroeder v. Owens-Corning Fiberglass Corp., 514 F.2d 901, 185 U.S.P.Q. 723 (9th Cir. 1975); and Cool-Fin Elecs. Corp. v. International Elec. Research Corp., 491 F.2d 660, 180 U.S.P.Q. 481 (9th Cir. 1974). The Examiner’s continued rejections are based on the Eick reference, which fails to show all of the essential elements of Appellant’s invention.

2. *The Eick reference does not include notification or causing as recited in Appellant’s claimed invention.*

While the Eick reference may teach some aspects of the present invention, the reference does not disclose **notification** of movement of a pointing device, as recited in claim 1, nor does it disclose movement of a pointing device **causing** a display indicating frame to be moved, as recited in claims 1, 4 and 6.

The Eick reference teaches displaying representations of spreadsheet lines in columns 205 (Col. 21, lines 11-12, Eick). The column representations taught by Eick comprise color coded indicia to describe information about the actual spreadsheet data, which is merely *represented* in the columns 205 rather than reproduced as smaller images. That is, the Eick columns 205 *do not* include reduced images of spreadsheet columns. Rather, they are merely *representations* of

spreadsheet columns containing a limited amount of information coded as color indications. Nevertheless, Eick does teach that an indicating frame 504 is moved within the column 205(1), such as by attachment of a cursor. The location of the indicating frame 504 within the column 205(1) does correspond to a particular area of data in the actual spreadsheet, that while not displayed in reduced form in the column 205, is displayed in enlarged form elsewhere on the screen.

These various elements recited in the claims of Appellant's invention are not disclosed anywhere in Eick. Nowhere in Eick is the **notification** discussed. Nowhere in Eick is movement of a pointing device **causing** movement of the display indicating frame used.

Therefore, Eick does not contain all of the elements cited in the rejected claims and consequently does not anticipate the present invention. In fact, Eick teaches the very prior art that the Appellant sought to distinguish himself from. That is, Appellant's invention involves a notification feature wherein movement of a pointing device results in notification between windows and sub-screens such that a display indicating frame is "caused" to be moved from a first sub-screen to a second sub-screen in response to movement of the pointing device. These features have been clearly recited in the claims of the present invention to distinguish the claims from prior art which lacks such a feature. Therefore, Appellant respectfully asserts that Eick does not anticipate the present invention and that the 102(e) rejection is traversed.

D. Rejection of Claims 2, 3, 5, 7 and 9 Under 35 U.S.C. § 103(a)

The Examiner rejected claims 2, 3, 5, 7 and 9 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,945,998 (Eick) in view of U.S. Patent No. 6,054,990 (Tran), asserting that while Eick fails to teach that the rectangle 205 displays a reduced image of a "page," the reference does suggest that the rectangle can be used to display pages of a spreadsheet or text. The Examiner asserts that it was thus implicitly motivated within Eick, at the time the invention was made, to implement the rectangle to display a reduced page. However, the Examiner makes no assertion regarding the Tran reference, including how it could have been combined with Eick to yield Appellant's invention.

Appellant respectfully traverses this ground of rejection.

1. *A prima facie case of obviousness is made when three criteria are met.*

Establishing a *prima facie* case of obviousness requires that three basic criteria be met. First, there must be a clear and particular suggestion or motivation, either in the prior art or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the references being relied on to reject the claimed invention. Second, the prior art reference or combination of references must teach or suggest all of the requirements of the invention. Third, there must be a reasonable expectation of success.

In the present case, Appellant conclusively demonstrates that (1) there is no clear and particular motivation to combine the cited references either in the references themselves, or based on what one of ordinary skill in the art would have known at the time of the invention; and (2) that had the cited references been combined, including knowledge generally available to one of ordinary skill in the art, there would not have been a reasonable expectation of success that providing: (a) *reduced images* of separate pages of a multi-page document in *multiple sub-screens* and (b) providing a means for *moving a display indicating frame from one sub-screen to another sub-screen* so as to select different areas on different pages within the multi-page document for enlarged view elsewhere on the screen.

2. *The Eick reference does not include or even suggest the claimed limitations of a first sub-screen displaying a first area of image data and a main screen displaying the image data with enlargement.*

Eick teaches displaying representations of spreadsheet lines in columns 205 (Col. 21, lines 11-12, Eick). The representations taught by Eick include color coded indicia to describe information about the actual spreadsheet data, which is merely represented in the columns 205 rather than reproduced. That is, the Eick columns 205 *do not* include reduced images of spreadsheet columns. Rather, they are merely *representations* of spreadsheet columns containing a limited amount of information coded as color indications.

Eick does not teach or suggest providing reduced images of a multi-page document (even a spreadsheet); rather, the Eick reference teaches *away from* Appellant's invention with its symbolic representations of spreadsheet information, which are intended to provide a simpler method for presenting a multi-page spreadsheet *without* presenting it as a reduced image of the actual spreadsheet data. Therefore, the Eick reference does not include the claimed limitations of a first sub-screen displaying a first area of image data and a main screen displaying the image data with enlargement.

3. *The Tran reference does not include moving an indicating frame from a first sub-screen window to a second sub-screen window.*

The Examiner has not identified any feature in Tran that could be combined with the Eick reference to render claims 2, 3, 5, 7 and 9 unobvious.

Despite the failure to identify which features or teachings within the cited references could have been combined to obtain Appellant's invention, the Examiner has persistently asserted that, having combined these references, the skilled artisan at the time Appellant's conceived their invention would have had a reasonable expectations of success in developing a scrolling feature for a window display method requiring only single input user manipulation. As detailed in the application, however, Appellant respectfully asserts that modifying the Eick reference to include a scrolling feature would *not* have resulted in a window display feature requiring only single input user manipulation.

Although the Examiner has not identified which features of he feels could have been combined with Eick to arrive at claims 2,3,5,7 and 9, he did identify a certain feature of Tran with respect to 35 U.S.C. §103 rejections of claims 1-7 and 9. In those rejections, the Examiner relied on the teachings of Tran related to an outline 106" for moving around a drawing to indicate locations of the drawing that are displayed in magnified format elsewhere on the screen. Therefore, to consider Tran in a light most favorable to the Examiner's position, Appellant proceeds under the theory that the Examiner considers this feature of Tran (outline 106") to be a component of the alleged obvious combination of Tran and Eick.

As illustrated in FIGS 2a and 2b of the Tran reference, outline 106" is essentially a magnifying feature. However, scrolling through multiple pages of a multi-page document to select areas of the document, on multiple pages, that can be enlarged in separate windows on the computer screen is not disclosed. That is, Tran does not disclose the claimed limitation of moving a display indicating frame from a first sub-screen to a second sub-screen. Moreover, there is no teaching in Tran or Eick to combine Tran's outline 106" with the teachings of Eick.

4. *There is no motivation to combine Eick and Tran, and such combination would not yield Appellant's claimed invention.*

Selection frames for selecting a portion of a page, including text or image data, for magnification elsewhere on a computer screen is a useful function for many computer based applications. Indeed, a great number of computer based applications include magnifying features. Typically, these features do utilize some sort of frame or other indicating mechanism for identifying or selecting a particular area of a document or a page that can then be enlarged and re-presented on the computer screen to afford the computer user a more detailed, enlarged image.

Here, existing prior art window display methods allowed individual pages of a multi-page document to be switched and viewed alternately, and allowed small portions of those pages to be displayed in magnified form in a main screen. However, as discussed in the application, the existing methods rendered it necessary to adjust the display position of the main screen after the page had been switched within the multi-page document because the area displayed in the main screen would not be shown in the reduced screen after the switch occurred in the enlarged main screen (p. 2 of specification).

An automatic scrolling feature would have been undesirable in these prior art applications because when the reduced image of a page to be displayed with enlargement in the main screen lies at the edge of the computer screen, adjustment of display position of the main screen would have to occur at the edge of the window screen. Then, in a second step, to manipulate a page that

would not appear on the display screen, a user would have to **command scrolling each time** it were manipulated (p. 3 of specification).

The apparent result of modifying prior art methods with a scrolling feature, such as by combining the teachings of the cited references would not yield Appellant's claimed invention. In contrast, it is an object of the invention to provide a window display device which would allow the page a user wants to move to be moved to a desired by a **single manipulation** and to allow the customarily desired operation on a preceding page or a next page to be done by a **single manipulation of a pointing device** (such as a mouse) and without using multiple keystrokes (p. 3 of the specification)

Therefore, a person of ordinary skill in the art would not have been motivated to seek a scrolling feature based on the cited references or combine these references.

In conclusion, Appellant traverses the persistent rejections of claims 2, 3, 5, 7 and 9 under 35 U.S.C. §103(a). The Examiner has asserted that a person having ordinary skill in the art would have been motivated to combine a reference (Eick) teaching a rectangle displaying an icon representing a page of a spreadsheet or text with a reference (Tran). First, based on the Examiner's failure to identify which feature of Tran he asserted could have been combined with Eick, Appellant respectfully asserts that their invention is not rendered unobvious in view of the combined references. Morevoer, even if the Examiner had identified a feature of Tran that could be combined with Eick, Appellant has demonstrated and continues to assert that there is no teaching or suggestion in Eick or Tran to combine the references or their teachings to arrive at the claimed invention.

E. Rejection of Claims 1-7, 9 Under 35 U.S.C. § 103(a)

The Examiner rejected claims 1-7 and 9 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,930,809 (Middlebrook) in view of U.S. Patent No. 6,054,990 (Tran), asserting that in light of certain reasoning set out in the Office Action, it would have been obvious to combine certain features of the two references to obtain Appellant's invention. Specifically, the Examiner has asserted that it would have been obvious to combine

Middlebrook's icon for selecting an area of text with Tran's selection frame to obtain Appellant's invention. However, the references do not teach such a combination, nor is such a combination suggested. Moreover, Appellant contends that the combination suggested by the Examiner would not result in their present invention, and thus, such a combination actually teaches away from Appellant's invention.

On this basis, Appellant respectfully traverses this ground of rejection.

1. *The applicable law requires a teaching or suggestion to combine references to produce the invention.*

Neither of the cited references teaches or suggests combining to produce the invention as claimed. Absent some teaching or suggestion to support the combination of the references, such combinations cannot establish obviousness. ACS Hospital Sys., Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577 (Fed. Cir. 1984); In re Geiger, 815 F.2d 686, 788 (Fed. Cir. 1987). The desirability of combining two references must be shown; it is not enough to merely state that such a combination is feasible. Winner Int'l Royalty Corp. v. Want, 202 F.3d 1340 (Fed. Cir. 2000).

2. *There is no teaching or suggestion to combine Middlebrook and Tran.*

There is no suggestion in either the Middlebrook reference or the Tran reference to combine the icon for selecting an area of text as taught by Middlebrook with the selection frame of Tran. Moreover, it is not clear to Appellant, even utilizing the hindsight knowledge of his invention, that such a combination is feasible. However, the Examiner has alleged that in light of certain reasoning, the combination would have been obvious and would have resulted in Appellant's invention.

3. *The Examiner's established a "reasoning" for asserting that the combination of Middlebrook and Tran would have been obvious.*

The Examiner has set forth what he refers to as "reasoning," outlining similarities in functionality between some of the features in the cited references and some of the features of Appellant's invention (p. 5-6, paper 20). In his reasoning, the Examiner sets out a chain of logic

according to which it would have been obvious to combine the cited references. Specifically, the Examiner explains that position icon 48 of Middlebrook can be used to select an area of text 32 to be displayed on a main screen. The Examiner then states that because the position icon 48 of Middlebrook can select an area of text to be displayed on a main screen, it is functionally equivalent to the selection frame of Appellant's invention. In light of this reasoning, the Examiner contends, it would have been obvious to combine the position icon of Middlebrook with the selection frame of Tran to achieve the present invention.

4. *The Examiner's reasoning is insufficient to find that the combination of Middlebrook and Tran would have been obvious.*

Appellant contends that, first of all, the position icon 48 of Middlebrook is *not* functionally equivalent to the selection frame of the present invention. Middlebrook's selection icon does identify, on a large area of text, which smaller part of the large area of text is currently displayed in magnification elsewhere on a computer screen. However, the selection frame of the present invention has additional functionality that *is not provided* by Middlebrook's selection icon. As claimed in claim 1, the display indicating frame is positioned on first a sub-screen and can be moved into a second sub-screen by dragging it into the second sub-screen with a pointing device. This functionality of the display indicating frame, to select areas of text on *multiple* sub-screens, is not found in Middlebrook's selection icon. Rather, Middlebrook's selection icon is limited to a single area of text.

5. *There is no motivation for combining the Middlebrook and Tran references.*

Aside from relying on the reasoning, which Appellant has already dispelled, no motivation has been identified by the Examiner for making such a combination. Even assuming, for purposes of argument, that the Examiner's reasoning stands, Appellant argues that it still would not have been obvious to combine Middlebrook's selection icon with the selection frame of Tran. The selection frame of Tran is an outline 106" as described in column 12 of the Tran reference. As described therein, the outline 106" serves as a magnifier, and may be moved about a drawing and re-sized to select areas of the drawing to be redisplayed in magnified form. FIGS.

2a and 2b assist in interpreting this functionality, which occurs only within a single drawing or a single area of text. Again, there is no teaching in the Tran reference to move outline 106" to another page or another area of text. The rejected claims of Appellant's invention, including claim 1, carefully recite the additional functionality of the display indicating frame to be dragged from a first sub-screen to a second sub-screen with a pointing device. This functionality is not disclosed in either reference. There is no motivation or suggestion to combine the references to achieve such functionality. Moreover, combination of the references *would not* result in the functionality.

"[T]he initial burden is on the Examiner to provide some suggestion of the desirability of doing what the inventor has done." See MPEP 2142. The Examiner in this case has failed to point to any suggestion of the desirability in any of the references cited to arrive at the invention claimed in any of claims 1-7 or 9.

6. *Under the applicable law, the Examiner has not made a sufficient 35 U.S.C. §103(a) obviousness rejection.*

35 U.S.C. §103 requires an analysis of the claimed invention as a whole, i.e. an analysis of the claimed combination of elements. Even where the claimed invention comprises individual components well known at the time of the invention, "[w]hat must be found obvious to defeat the patent is the claimed combination." The Gillette Co. v. S.C. Johnson & Son Inc., 16 USPQ2d 1923, 1927 (Fed. Cir. 1990). It is impermissible to simply engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill in the gaps. The *references themselves* must provide some teaching whereby the applicant's combination would have been obvious. In re Gorman, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (emphasis added).

Because the cited references fail to suggest the combination of elements recited in the pending claims, whether viewed alone or in combination, Appellant respectfully continues to submit that the pending claims are not obvious in view of the references.

(9) CONCLUSION

The present patent application claims a new window display method for improving display methods of multi-page computer documents by allowing a user to easily navigate through the document and control the area of the document which is displayed. Specifically, the user control is asserted through a scrolling feature, and by moving an indicating frame within a reduced image of a multi page document on a small portion of the screen so that the area surrounded by the indicating frame is instantly displayed and magnified in a main frame on a larger portion of the computer screen. A reduced-size sub-screen column identifies for fast recognition which of the pages in the multi-page document is currently displayed in magnified form in the main screen. The sub-screen column also provides scrolling, wherein the previous and following page are also identified for fast recognition of which area within a multi-page document is currently displayed in the magnified main screen, improving navigation throughout the document.

The feature of Appellant's invention which allows the scrolling and navigation through a multi-page document by single commands issued from a computer pointing device such as a mouse has resulted in substantial improvements over prior art methods. In the prior art methods, multiple commands were necessary to effectuate the same magnification and scrolling actions that are caused by a single user command in Appellant's invention

The Examiner has rejected the pending claims and asserts that the specification is not enabling under 35 U.S.C. §112, first paragraph a sub-screen window causing a display indicating frame to be moved within said sub-screen, even though this exact functionality of windows in general is well known in the art, and the specification provides detailed examples of the functionality.

The Examiner has also rejected pending claims on the assertion that their elements were either anticipated under 35 U.S.C. §102(e) or rendered obvious under 35 U.S.C. §103(a) in view of several cited references. However, several elements in the rejected claims are simply not present in the § 102(e) reference (Eick). Also, Appellant has argued herein his reasons for

supporting a finding that their invention also was not obvious, at the time it was made, even in view of the cited § 103(a) references.

The Appellant respectfully disagrees with the Examiner and request the Board of Patent Appeals and Interferences to allow the pending claims. The pending claims have been carefully drafted to recite elements of their invention that are not disclosed in any of the cited references. In fact, Appellant conceived his invention to overcome limitations of the prior art including those found in the cited references. Finally, Appellant submits that his invention was not obvious at the time it was conceived, even in view of the cited references.

The vast majority of computer programming state of the art practices and patent prosecution law do not support the Examiner's persistent rejection of the pending claims in the present application based on 35 U.S.C. § 112, first paragraph, 35 U.S.C. §102(e) and 35 U.S.C. §103(a). Consequently, the Appellant respectfully requests this Board of Patent Appeals and Interferences to reverse the Examiner's decision and allow the presently pending claims.

Respectfully submitted,

Dated: October 7, 2002



Richard M. Goldman
Registration No. 25,585

Attachment: Appendix (Claims Subject to Appeal)

International Business Machines Corporation
Intellectual Property Law (J46/G4)
555 Bailey Avenue
San Jose, CA 95141-9989
Telephone: (408) 463-5891
Facsimile: (408) 463-4827

Appendix

Claims Subject to Appeal

1. A window display device which displays image data on a display screen, comprising:
 - a first sub-screen displaying a first area of image data;
 - a main screen displaying a part of said first area of image data with enlargement;
 - a second sub-screen displaying a second area of image data which is adjacent to said first area of image data;
 - a first sub-screen image window for displaying an area of image data displayed in said main screen with a display indicating frame on said first sub-screen;
 - a main screen image window for moving said image data within said main screen in correspondence to an output representing movement of a pointing device as notified by said first sub-screen window, said first sub-screen window causing said display indicating frame to be moved within said first sub-screen while said pointing device is in dragging state; and
 - a second sub-screen image window for displaying said display indicating frame in said second sub-screen when said pointing device has moved said display indicating frame by dragging it into said second sub-screen.

2. (Amended), A window display device which displays image data having a page delimiter on a display screen, comprising:

- a first sub-screen displaying a first area of image data in a sub-screen column;
- a main screen displaying a part of said first area of image data with enlargement;
- a second sub-screen displaying in said sub-screen column a second area of image data which is adjacent to said first area of image data;
- a first sub-screen image window for displaying a reduced image of a page which is currently displayed on said main screen with said first area of image data displayed in said main screen indicated in said first sub-screen image window by a display indicating frame;
- a main screen image window for moving said image data within said main screen in correspondence to an output representing movement of a pointing device as notified by said first sub-screen window, said first sub-screen window causing said display indicating frame to be moved within the same page while said pointing device is in dragging state;
- a second sub-screen image window for displaying said display indicating frame in said second sub-screen when said pointing device has moved said display indicating frame by dragging it into said second sub-screen;
- a display screen parent window operative when said pointing device has dropped said display indicating frame at an arbitrary place on said second sub-screen to which said pointing device moved, for switching said main screen to the page to which said pointing device moved and displaying the place indicated by said display indicating frame in said main screen; and

a sub-screen parent window for scrolling said sub-screen so that the sub-screen of the page displayed on said main screen comes to a predetermined position of said sub-screen column.

3. The window display device of Claim 2 in which said sub screen parent window scrolls said sub-screen so that the subscreen of the page displayed on said main screen comes to substantially the central position of said sub-screen column.

4. (Amended) A window display method of displaying image data on a display screen of a display device having a first sub-screen displaying a first area of image data, a main screen displaying a part of said first area of image data with enlargement and a second sub-screen displaying a second area of image data which is adjacent to said first area of image data, said window display method comprising the steps of:

displaying an area displayed in said main screen with a display indicating frame on said first sub-screen;

moving said display indicating frame and the image data within said main screen in correspondence to the movement of a pointing device which causes said display indicating frame to be moved within said first sub-screen while said pointing device is in dragging state; and

displaying said display indicating frame in said second sub-screen when said pointing device has moved said display indicating frame by dragging it into said second sub-screen.

5. (Amended) A window display method of displaying image data having a page delimiter on a display screen of a display device having a main screen displaying a part of a page with enlargement, a first sub-screen displaying a first area of image data of that page in a sub- screen column and a second sub-screen displaying one or more second areas of image data which is adjacent to said page, said window display method comprising the steps of:

displaying a reduced image of a page which is currently displayed on said main screen with the image data displayed in said main screen indicated by a display indicating frame;

moving said display indicating frame and said image data within said main screen in correspondence to the movement of a pointing device which causes said display indicating frame to be moved within the same page while said pointing device is in dragging state;

displaying said display indicating frame in said second sub-screen when said pointing device has moved said display indicating frame by dragging it into said second sub-screen;

switching said main screen to the page to which said pointing device moved to display the place indicated by said display indicating frame in said main screen when said pointing device has dropped said display indicating frame at an arbitrary place on said second sub-screen -to which the pointing device moved to display the place indicated by said display indicating frame in said main screen; and

scrolling said sub-screen so that the sub-screen of the page displayed on said main sub- screen comes to a predetermined position of said sub-screen column.

6. (Amended) A recording medium recording a display control program for operating a computer system having a display device for displaying image data on a display screen of said display device, said display control program causing said computer system to:

display a first sub-screen displaying a first area of image data;

display a main screen displaying a part of said first area of image data with enlargement;

display a second sub-screen displaying a second area of image data which is adjacent to said first area of image data;

display the part of said first area of image data displayed in said main screen on said first sub-screen with a display indicating frame;

move said display indicating frame and said image data within said main screen in correspondence to the movement of a pointing device which causes said display indicating frame to be moved within said first sub-screen while said pointing device is in dragging state; and

display said display indicating frame in said second sub-screen when said pointing device has moved said display indicating frame by dragging it into said second sub-screen.

7. (Amended) A recording medium recording a display control program for operating a computer system having a display device for image data having a page delimiter on a display screen of a display device, said display control program causing said computer system to:

display a main screen displaying a part of a page with enlargement;

display first sub-screen displaying a first area of image of that page in a sub-screen column;

display a second sub-screen displaying one or more second areas of image data which is adjacent to said page in said sub-screen column;

display a reduced image of a page which is currently displayed on said main screen with the image data displayed in said main screen indicated by a display indicating frame;

move said display indicating frame and said image data within said main screen in correspondence to the movement of a pointing device which causes said display indicating frame to be moved within the same page while said pointing device is in dragging state;

display said display indicating frame in said second sub-screen when said pointing device has moved said display indicating frame by dragging it into said second sub-screen;

switching said main screen to the page to which said pointing device moved to display the place indicated by said display indicating frame in said main screen, when said pointing device has dropped said display indicating frame at an arbitrary place on said second sub-screen to which said pointing device moved; and

scroll said sub-screen so that the sub-screen of the page displayed on said main sub-screen comes to a predetermined position of said sub-screen column.

9. A window display device according to claim 1, wherein said display indicating frame has a width and a height, said width being less than a width of said first sub-screen and said height being less than a height of said first sub-screen.